

**ANCHORAGE  
WATER AND  
WASTEWATER UTILITY**





# ANCHORAGE WATER AND WASTEWATER UTILITY

## Mission

The Anchorage Water and Wastewater Utility is committed to providing quality water supply and wastewater disposal services to all municipal residents at a reasonable cost consistent with: a demonstrated public need; community health and safety standards; regulatory requirements; and sound management practices.

## Goals

- That the Utility be committed to the organization mission statement which is to provide its customers with economy and continuity of services and, in the case of water, that the service be of high quality, in quantities sufficient to meet the needs of an expanding service demand and with adequate wastewater support to sufficiently accommodate the disposal for that demand.
- That community and government relations continue to be important to the Utility and that their involvement in future planning will add credibility, as well as demonstrate our responsiveness to outside participation.
- That the Utility evolve into a recognized leadership role in the Municipality and that with appropriate financial and data support, it should continue in a pioneering role which is the natural evolution of sound planning for future customer needs.
- That emphasis on employees and community relations will keep morale high, motivation up and customer courtesy at its highest level of satisfaction. Frequent newsletters, media releases and other types of public communication will keep customers and employees informed on issues which will then generate favorable responses to voter choices.
- That those in executive and supervisory positions should be knowledgeable of municipal and other regulations applying to the Utility, as well as maintaining an awareness of constantly changing knowledge occurring within the water and wastewater industry.
- That the Utility maintain sound fiscal and financial controls which, when coordinated with customer growth, will meet demand without jeopardizing the stability of the Utility. It is believed that well developed policies and procedures, job descriptions and planning will play a key role in the viability of the organization.
- That open communication and ease of access to all customer services will remain key factors in the Utility's future successes. Our adherence to established municipal employee guidelines will improve efficiency, reduce turnover of personnel and generate greater cooperation in accomplishing the mission of the Utility.

## Factors Driving the Utility

- Expansion of water source/production capability necessary to meet future demands.
- Expansion of sewage treatment capability necessary to meet current and future demands.
- Rapid growth of community accelerates need for new/more facilities.
- Increase productivity within Utility.
- The Utility is regulated by Alaska Public Utilities Commission.
- A critical shortage of administrative/operational/vehicle space currently exists within the Utility.
- The need for computerization, both management information systems and operational.
- Future funding of large capital program will be a problem.
- U.S. Environmental Protection Agency will continue to regulate the Utility.
- Water rights will be a growing problem as water resource demands increase.
- Grant support for Improvement Districts, LID's and WID's will continue to be a problem.
- Employee Training Program will have to continue and grow.



## **Planning Assumptions**

The following assumptions were used in developing the Utility's 1984-1989 long-range plans. They are not intended to be a fixed course of action. They are, however, the best data available at this stage of planning.

- The Eklutna Water Project will be built.
- The Ship Creek Water Treatment Plant will be expanded.
- The Point Woronzof Wastewater Treatment Plant will be expanded.
- Central Alaska Utilities will be acquired during the first quarter of 1984.
- Service will be expanded in Eagle River.
- Community will continue to grow.
- We will continue with APUC regulation.
- We will continue to develop CPRMIS.
- We will have to raise more money locally to fund Capital Improvements.
- We will continue with the same Administration for the next four years.
- Water rights issues will be solved.
- We will have a water shortage within the next two years.
- Employees will be more productive with an increased level of training.
- We will be allowed to increase the budget to meet customer requirements.
- We will continue to receive substantial funding support from the State.
- We will be allowed to complete a new headquarters facility.
- We will provide water service to Girdwood within the next four years.
- In order to attract and retain competent and motivated personnel, salaries and benefits will be commensurate with those offered by private concerns and other government agencies.

## **Objectives**

The Utility's major objectives over the next six years will be:

- To maintain the present high quality of water within its distribution system in 1984 and in each succeeding year, through regular laboratory examination and improved system management.
- To consistently satisfy the NPDES permit requirements for wastewater treatment and disposal, through improved treatment facility operation.
- To complete current cost of service studies for Anchorage Water and Wastewater Utilities on a timely basis.
- To measurably decrease response time to customers by the Customer Service Section in 1984.
- The implementation of an automated CPR System for the Water and Wastewater Utility.
- The implementation of a residential metering program.
- To increase emphasis on public education about water conservation.
- The acquisition of Central Alaska Utilities, Inc.'s physical plant and service area.
- To utilize effective operating management, financial, and construction practices to produce a minimum profit in order to maintain financial viability and sustain growth.
- To keep the public informed of pertinent Utility activities and capital programs through an effective Community Relations effort.
- To utilize proven professional management practices as an organizational standard.



## Programs

- **Quality of Water:** Expand water sampling and test analysis and document results and trends with aid of MIS Division computer system. Develop expanded schedule of line flushing based on laboratory test results.
- **Wastewater Disposal:** Improve chemical utilization by adding chlorine and chemical coagulant upstream of treatment facility. Collect and analyze treated effluent daily to determine effectiveness of treatment process.
- **Rates:** Complete cost of service and revenue requirements studies for submission to Alaska Public Utilities Commission (APUC). File for rate increase as soon as the need is established in order to reduce the magnitude of increases in the future.
- **Customer Service:** All customer inquiries to be answered within 24 hours. Interim reply given for those requiring extensive research.
- **Regulatory:** Develop capability to generate plant-in-service schedules by type of plant, location, and year of installation (CPR's). Develop capability to generate plant-in-service schedules by MUSA Service Area, and initiate automated calculation of monthly depreciation/amortization expense by plant category.
- **Conservation:** Encourage conservation by requiring installation of meters in all new residential construction. Obtain approval of Uniform Plumbing Code changes by the Building Board of Examiners.
- **Growth:** Approval of Central Alaska Utilities acquisition; expand service in Eagle River; expansion of both the Water treatment and Wastewater treatment plants; complete Eklutna Water Project.
- **Profits:** Reduce the per-foot cost of maintenance for the collection system and the per-unit cost of the treatment facilities by seeking more efficient methods of utilizing our personnel; encourage innovative practices and evaluate new equipment which utilizes less manpower. Provide and encourage training that will upgrade the expertise of our personnel.
- **Public information:** Initiate an in-house speaker service to discuss Utility activities and financing needs with community groups. Utilize public service radio and television programs to keep citizens informed. Initiate at least three informational mailings to all AWWU customers each year.
- **Management:** Ensure through training sessions and workshops that managers, foremen, and supervisors know and follow, in a consistent manner, AWWU policies and procedures within these Utilities. Managers and supervisors will focus on problem prevention rather than problem solution. Improve employees' understanding of the Utility's goals and objectives by utilizing various feed-back techniques.
- **Wastewater Treatment:** A project to expand the capacity of the Pt. Woronzof WWTF from 22 mgd to in excess of 58 mgd and extend the effluent outfall discharge line is scheduled for 1985. A study to determine future needs for the rapidly expanding Eagle River-Chugiak area is underway. Pump stations and force mains are also scheduled for design and construction in this area. Increased use of telemetry for system monitoring is programmed to increase efficiency.
- **Buildings:** A new headquarters building is planned to resolve the serious space problem now existing which requires rental of additional facilities and separation of functions.

## MANPOWER FORECAST

DIVISIONS	1983	1984	1985	1986	1987	1988	1989
Manager	16	20	21	21	22	22	22
Engineering	41	55	60	62	65	66	69
Treatment	71	76	78	93	107	145	173
Operations	101	111	118	123	128	133	138
Finance	19	22	23	24	24	25	25
<b>TOTAL</b>	<b>248</b>	<b>284</b>	<b>300</b>	<b>323</b>	<b>346</b>	<b>391</b>	<b>427</b>



**RESOURCE IMPACTS**  
**ANCHORAGE WATER UTILITY**

	1984	1985	1986	1987	1988	1989
Growth Factors						
Population	229,760	231,850	241,410	241,540	242,210	244,450
Bonds Sales (thousands)	\$ 31,494	\$ 25,830	\$ 30,900	\$ 8,425	\$ 8,450	\$ 9,450
Grants Anticipated (thousands)	\$ 66,485	\$ 50,475	\$ 40,550	\$ 4,820	\$ 7,620	\$ 4,900
Personnel Increases						
Program:						
Eklutna Water Project	—	—	—	—	9	13
Water Treatment Plant	1	4	6	3	2	—
Laboratory	—	1	1	—	2	—
<b>TOTAL</b>	<b>1</b>	<b>5</b>	<b>7</b>	<b>3</b>	<b>13</b>	<b>13</b>
Revenue (thousands)	\$ 14,736	\$ 16,293	\$ 20,643	\$ 23,552	\$ 28,462	\$ 31,965
Expense (thousands)	14,165	14,511	16,309	18,433	21,484	24,687
Net Income Regulatory (thousands)	\$ 571	\$ 1,782	\$ 4,334	\$ 5,119	\$ 6,978	\$ 7,278
Possible Rate Increases (Year Requested)		23.94%		24.42%		18.19%

**1984 BUDGET IMPACTS**  
**ANCHORAGE WATER UTILITY**

**Operational**

- The acquisition of Central Alaska Utilities, Inc. will increase the number of employees by nineteen at an approximate cost of \$850,630, which will be off-set by revenues from that Utility's revenues. Other impacts are too numerous and complex to address in this summary.
- The large volume of private development construction completed in 1983, combined with our significantly increased capital program, continues to push a requirement for increased personnel to operate, maintain, and inspect this additional plant.

**Capital**

- Continuation of the Eklutna Water Project is projected to be AWWU's largest funding requirement during 1984 and is estimated to cost \$68 million. This phase will provide for the acquisition of right-of-way for construction of the remaining three pipeline segments. It will also provide funding for final design of the water treatment plant and the Eklutna Lake Pump Station. This project is essential for the long-range water requirements of Anchorage.
- Expansion of the Ship Creek Water Treatment Plant will be initiated in 1984 at an estimated cost of \$13 million excluding design and contract administration. This project will increase the plant's capacity from 10 mgd to 24 mgd which is vital for the short-term growth of Anchorage.
- Further extension of the South Anchorage (Abbott Road) 30-inch transmission main will take place during 1984 with initiation of Phase II and Phase III, estimated to cost \$3,000,000, which will extend the main south to 84th Avenue and Lake Otis Parkway.

**BUDGET SUMMARY**  
**ANCHORAGE WATER UTILITY**

	<b>1982 ACTUAL</b>	<b>1983 PRO-FORMA</b>	<b>1984 PROPOSED</b>
<b>OPERATING BUDGET</b>			
Revenue	\$9,509,540	\$9,521,340	\$14,736,130
Expense	8,837,510	10,824,770	16,515,700
Net Income for Governmental Financial Reporting	672,030	(1,303,430)	(1,779,570)
Adjustment for Regulatory Reporting	1,098,850	1,428,500	2,350,200
Net Income (Regulatory)	\$1,770,880	\$125,070	\$570,630
 <b>CAPITAL BUDGET</b>			
	Appropriated		
Project Category			
• Resource Development	\$70,000	\$49,925,000	\$69,180,000
• Treatment	411,000	810,000	3,890,000
• Distribution Reservoirs	—0—	1,450,000	375,000
• Distribution	750,000	1,500,000	1,200,000
• Transmission	190,000	1,765,000	5,665,000
• Upgrade Transmission	150,000	1,550,000	1,490,000
• Repair & Rehabilitation	875,000	1,830,000	1,640,000
• New Equipment	643,000	830,000	2,120,000
• Buildings	230,000	320,000	170,000
<b>TOTAL</b>	<b>\$3,319,000</b>	<b>\$59,980,000</b>	<b>\$85,730,000</b>



**RESOURCE IMPACTS**  
**ANCHORAGE WASTEWATER UTILITY**

	1984	1985	1986	1987	1988	1989
Growth Factors						
Population	229,760	231,850	241,410	241,540	242,210	244,450
Bond Sales (thousands)	\$ 15,000	\$ 15,970	\$ 11,060	\$ 7,605	\$ 8,535	\$ 8,135
Grants Anticipated (thousands)	\$ 28,285	\$ 22,190	\$ 9,015	\$ 3,000	\$ 2,500	—
Personnel Increases						
Program:						
Anchorage Treatment Plant	1	1	6	7	3	—
Eagle River Expansion	—	—	—	3	7	2
Girdwood Plant	—	—	—	—	1	4
Laboratory	—	1	—	1	1	—
<b>TOTAL</b>	<b>1</b>	<b>2</b>	<b>6</b>	<b>11</b>	<b>12</b>	<b>6</b>
Revenue (thousands)	\$ 21,227	\$ 24,914	\$ 30,174	\$ 33,093	\$ 40,533	\$ 45,405
Expense (thousands)	19,416	20,627	23,134	26,100	30,356	34,831
Net Income Regulatory (thousands)	\$ 1,811	\$ 4,287	\$ 7,040	\$ 6,993	\$ 10,177	\$ 10,574
Possible Rate Increases (Year Requested)		28.75%		20.48%		11.39%

**1984 BUDGET IMPACTS**  
**ANCHORAGE WASTEWATER UTILITY**

**Operational**

- As in the Water Utility, the growth in the Anchorage bowl and Eagle River area has created additional manpower needs to operate, maintain, and inspect this plant.

**Capital**

- The construction phase for expansion of the Point Woronzof Wastewater Treatment Plant from 22 mgd to in excess of 58 mgd will be initiated in 1984. Total cost of the project, which excludes extension of the outfall will be approximately \$23,325,000.
- The Chester Creek Force Main will be expanded and rehabilitated during 1984. This project, which will cost approximately \$3,000,000, will construct a new force main to replace the existing main and provide additional capacity.
- Funding has been requested for construction of new a headquarters building. This facility, which would be initiated in 1984, will satisfy the short-to-long-run administrative/operational space requirements for AWWU. The net cost will be approximately \$8,000,000.

**BUDGET SUMMARY**  
**ANCHORAGE WASTEWATER UTILITY**

	<b>1982 ACTUAL</b>	<b>1983 PRO-FORMA</b>	<b>1984 PROPOSED</b>
<b>OPERATING BUDGET</b>			
Revenue	\$14,882,440	\$15,618,110	\$21,226,890
Expense	15,958,200	19,385,010	22,690,630
Net Income for Governmental Financial Reporting	(1,075,760)	(3,766,900)	(1,463,740)
Adjustment for Regulatory Reporting	2,255,980	2,729,700	3,275,000
Net Income (Regulatory)	\$ 1,180,220	(\$ 1,037,200)	\$ 1,811,260
<b>CAPITAL BUDGET</b>			
	Appropriated		
Project Category			
• Treatment	\$ 458,000	\$ 7,195,000	\$23,325,000
• Pump Stations/Force Mains	298,000	4,305,000	3,000,000
• Trunks & Interceptors	1,900,000	6,860,000	2,250,000
• Laterals	3,000,000	4,000,000	2,000,000
• Repair & Rehabilitation	1,901,000	7,150,000	2,320,000
• New Equipment	1,389,000	1,805,000	1,980,000
• Buildings	—0—	3,500,000	8,100,000
<b>TOTAL</b>	<b>\$ 8,946,000</b>	<b>\$34,815,000</b>	<b>\$42,975,000</b>